

# Exhibit 1

**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

**ANYWHERECOMMERCE, Inc. and  
BBPOS LIMITED,**

**Plaintiffs,**

**v.**

**INGENICO, INC., INGENICO CORP.,  
INGENICO GROUP, SA, and INGENICO  
VENTURES SAS,**

**Defendants.**

**Civil Docket No: 1:19-cv-11457-IT**

**REBUTTAL EXPERT REPORT OF MICHAEL SHAMOS, PH.D., J.D.**

**CONFIDENTIAL**

145. The remaining four marked documents are all titled “Data Output Format for POS device,” and are four different revisions containing information about card formats. However, these formats are determined by the card issuers, and are not a trade secret of BBPOS.

146. The fact that only eight of his 53 documents are marked as confidential contradicts Mr. Zatkovich’s assertion in ¶ 116 that “[a]ll BBPOS documents, trade secret or otherwise, are notated with the designation of ‘Confidential and Proprietary BBPOS Limited’ in the headers and footers of each page.” That is clearly not true.

147. There would be no way, then or now, for the recipient of any other documents to know that they contained alleged trade secrets. The fact that a few documents are marked “confidential,” while others are not, suggests that the unmarked documents were not confidential.

#### **B. BBPOS trade secrets shared with ROAM**

148. In ¶¶ 119-139, Mr. Zatkovich discusses material allegedly disclosed by BBPOS to ROAM.

149. In ¶ 124, Mr. Zatkovich alleges that Landi was “a POS development shop who also had a portfolio of POS products, again mostly wired and none using the audio jack interface of a mobile phone.” He cites no authority for that statement, and Mr. Rotsaert informs me that it is incorrect and that Landi had mobile phone interfaces in development in 2012. Below is a spreadsheet showing the list of smartphones supported by Landi in December 2012.

Brand	Device model	CPU	Core number	OS Version (Android)	Time to market
Samsung	I9001	Snapdragon MSM8255	1	2.3	2011
	I9100G	OMAP4430	2	2.3	2011.8
	I9103	Nvidia Tegra2	2	2.3	2011
	SCH-I589	Snapdragon MSM7627	1	2.2	2011.7
	I9008L	OMAP3630		2.2	2011
	I919	Snapdragon MSM8655	2	2.3	2011
	I909		1	2.1	2010.9
HTC	HTC G17	Snapdragon MSM8660	2	2.3	2011.6
	Z510d	Snapdragon QSD8650	1	2.3	2011.9
	510e Wildfire	Snapdragon MSM7227		2.3	2011.7
	S610d	Snapdragon MSM7630		2.3	2011.9
	S710d	Snapdragon MSM8655		2.2	2011.4
MOTO	ME860	Nvidia Tegra2	2	2.2	2011.4
	MT680	Marvell PXA920H		2.3	2012.6
	XT531	Snapdragon MSM7227		2.3	2011.7
	MT887	OMAP4430		4	2012.6
	ME722 2/A953	OMAP3630		2.2	2010.9
Sony Ericsson	LT29i	Snapdragon MSM8260A	2	4.0	2012
	LT28i	Snapdragon MSM8660	2	4.0	2012
	MT15i	Snapdragon MSM8255	1	2.3	2011.3
	WT15i	Snapdragon MSM8255	1	2.3	2011.3
LG	P880	Nvidia Tegra3	4	4.0	2012
	P970	OMAP3630		2.2	2011.3
Lenovo	A500	MTK6573	1	2.3	2011
	A580	Snapdragon MSM7227A	1	4	2012
	A698t	MT6515+AST2001	1	4	2012.6
	S760	Snapdragon MSM7227T	1	2.3	2011.12
	phoneS2 Idea phoneS2	C111 Samsung C111	1	OS 3.0 (Base on Android 2.3)	2011.11
ZTE	U880	Marvell PXA920		2.2	2011.5
	V889D	Snapdragon MSM7227A	1	2.3	2012
	N880E	Snapdragon MSM7627A		2.3	2012
	V880	Snapdragon MSM7227		2.2	2010.11
	V960	Snapdragon MSM7227T		2.3	2011.8
Huawei	C8650	Snapdragon MSM7627		2.3	2011.8
	U9510	K3V2 Hi3620	4	4.0	2012.9
	S8600 Spark	Snapdragon MSM7627T	1	2.3	2011.9
	U8800/C8800	Snapdragon MSM8255/ Snapdragon MSM7627T	1	2.2	2011.9/2011.03
	T8830	MT6575	1	4.0	2012
	G330D	Snapdragon MSM8225	2	4.0	2012
K-Touch	W806	Nvidia Tegra2	2	OS 2012 Cloud OS 2012	2012.4
OPPO	Real R803	800		2.3	2012.3
Coolpad	9900	Snapdragon MSM8660	2	2.3	2011.11
TP-link	T882	MSM8255		4.0	2012
Vivo	Vivo S7	MT6575		4.0	2012
Hisense	HS-U8	Snapdragon MSM7227A		2.3	2012
Haier	W910	Snapdragon MSM8260A	2	4.0	2012.7
					(46pcs)

150. Mr. Rotsaert's view is further supported by the email exchange Mr. Zatkovich refers to in ¶¶ 126-127 between Mr. Rotsaert and Mr. Lo, in which Mr. Rotsaert says that "swipe, audio jack interface & power management are not ready," not that they do not exist. I am informed that the prototype presented at Cartes was in fact functional.

151. In ¶ 128, Mr. Zatkovich says that "BBPOS began providing information to the ROAM Data team in Feb 2012 to continue development on the next version of EMV and NFC enhancements." It is true that Roam was working on EMV and NFC, but there is no evidence that BBPOS provided Roam any disclosures relating to EMV or NFC.

152. In ¶ 132, Mr. Zatkovich states that "Coupled with the assumption that an Acquisition of BBPOS was in process, the BBPOS team complies with all requests to provide information on their product designs and status." He cites no authority for that statement, and Mr. Rotsaert informs me that he complained numerous times to BBPOS that he was not getting the requested information.

153. In ¶ 134, Mr. Zatkovich states that BBPOS shared technical specifications for the new ROAM pay API, 4.0 v1.2, with ROAM and Ingenico. Clearly, BBPOS was not the owner of ROAM's API, and Mr. Rotsaert informs me that BBPOS was acting as a contract software developer on the API project and has no basis for its claim of ownership.

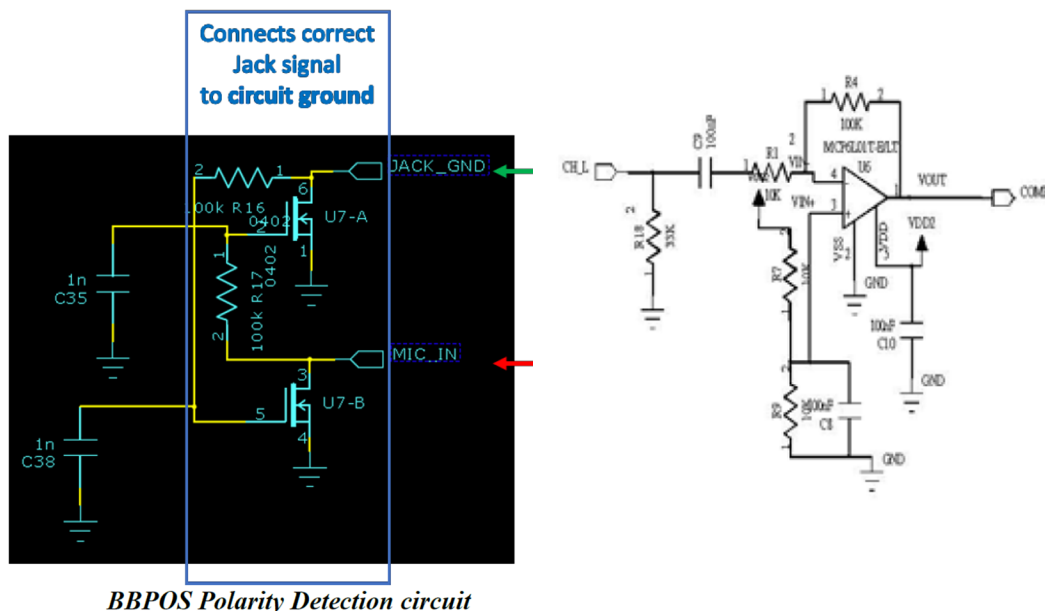
154. In ¶ 136, Mr. Zatkovich refers to a request from Mr. Rotsaert in an effort to propose a solution for an EasyCash (ING Germany) demo, to which BBPOS replied with a version of its Swiper Data Output Format, citing BBPOS\_0005121-BBPOS\_0005122. However, the output format used by a swiper is readily ascertainable by capturing the output of the swiper, and cannot be a trade secret. I understand further that the demo never took place because Visa

Europe required all payment terminals to support Magstripe, EMV, Pin entry & contactless interfaces-

### C. Audio Jack Polarity Detection trade secret information requested/received

155. In ¶ 140, Mr. Zatkovich refers to polarity detection schematics that were furnished to Roam. However, as I show below, Ingenico's polarity detection circuit was not based on that of BBPOS.

156. Further, it is not even clear what the "polarity detection circuit" consists of. The circuit diagram illustrated in ¶ 70 of the Zatkovich Report is different from the circuit he says in ¶ 141 is the polarity detection circuit. The ¶ 70 circuit is shown on the left below. The ¶ 141 circuit is on the right.

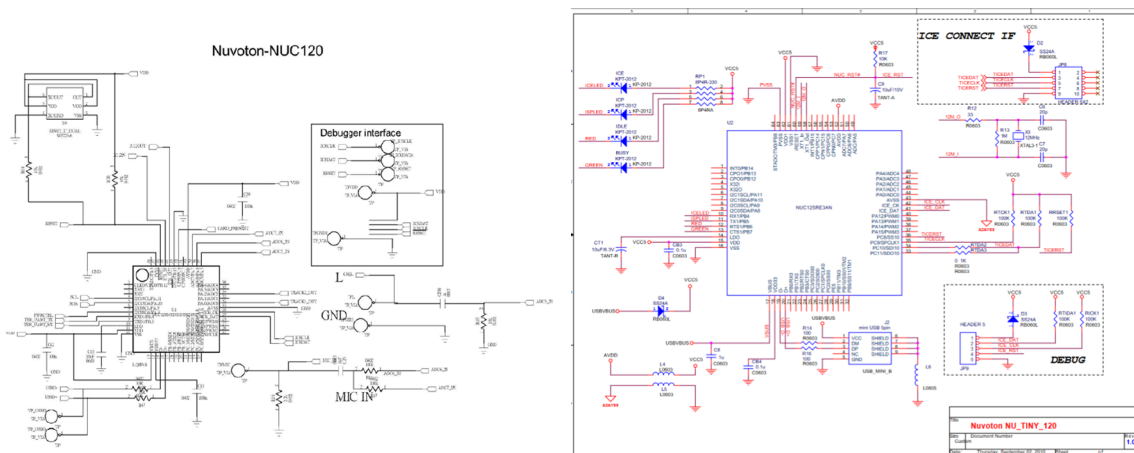


157. These circuits are not the same. They differ in the number and arrangement of components.

158. None of the circuit drawings allegedly sent to Ingenico contains any confidentiality marking.

### D. Power Management trade secret information requested/received

159. In ¶ 141, Mr. Zatkovich refers to disclosure of schematics allegedly sent from BBPOS to Roam. These schematics are misleading because they consist primarily of drawings taken from chip manufacturers' data sheets, and, to that extent, they were not created by BBPOS. For example, Mr. Zatkovich points to IngenicoInc\_0010195-200, but this contains a data sheet from Nuvoton, whose NUC120 chip was proposed to be used. At left below is IngenicoInc\_0010195. At right is a NUC120 data sheet I obtained from <https://media.digikey.com/pdf/Data%20Sheets/Nuvoton%20PDFs/NUC120.pdf>



160. Mr. Zatkovich does not identify what portion, if any, of the shared documents represents the alleged trade secrets and which portions are simply reproduced from third-party sources. A third-party data sheet is not a trade secret of BBPOS. None of the schematics bears any confidentiality markings.

#### **E. Automatic Gain Control (and SDK) trade secret information requested/received**

161. In ¶ 142, Mr. Zatkovich points to two documents allegedly containing disclosures of this trade secret, IngenicoInc\_0009756-9767 and IngenicoInc\_0283863-864. These documents together constitute only four pages, without any confidentiality markings, and no circuit diagrams. However, in ¶¶ 91-92, Mr. Zatkovich refers to 11 parameters BBPOS

measured for 442 mobile phone models, i.e., 4862 parameters. The four pages disclosed to Roam do not contain even a single one of those parameters, and Mr. Zatkovich presents no evidence that either the 11 types of parameters, or any individual value of any parameter for any particular mobile phone model was ever disclosed to Roam.

162. Further, Mr. Zatkovich provides no evidence that any BBPOS automatic gain control circuit or algorithm was ever disclosed to Roam.

**F. Communication Formats (and SDK) trade secret information requested/received**

163. In ¶ 143, Mr. Zatkovich lists multiple documents relating to data formats that were disclosed to Roam. However, as I have already explained in ¶¶ 117-124, a communication format cannot be a trade secret because it is readily ascertainable by examining the communications themselves.

**G. Data Security / DUKPT Data Encryption Methods trade secret information requested/received**

164. In ¶ 144, Mr. Zatkovich lists various documents containing DUKPT source code that were sent to Roam. However DUKPT is a publicly available algorithm for which many open source code sets are available online. The only conceivable trade secret in BBPOS's DUKPT implementation, based on Mr. Zatkovich's description of the alleged trade secrets would be the non-standard variations introduced by BBPOS. Mr. Zatkovich does not indicate which, if any, portions of the code relate to the supposed trade secret.

**X. ROAM /INGENICO'S USE OF THE TRADE SECRETS**

165. In ¶¶ 145-146, Mr. Zatkovich asserts that Ingenico used BBPOS trade secrets in various requirements documents. However, none of the material that appears in the cited requirements documents was a trade secret of BBPOS.

**A. Ingenico's use of BBPOS' Audio Jack Polarity Detection design**



166. In ¶¶ 147-160, Mr. Zatkovich alleges that Ingenico used BBPOS's polarity detection design. It did not.

167. In ¶ 149, Mr. Zatkovich cites a requirement document containing the requirement to "detect polarity to switch automatically MIS/GND." However, as I pointed out earlier, there are only two possible polarities, and switching to the correct polarity is essential for proper functioning of a device. It was not a trade secret. On the contrary, it was commonly known in the trade.

168. The fundamental problem with Mr. Zatkovich's demonstration is apparent in ¶¶ 152-153 and again in ¶¶ 154-155. In ¶¶ 152-153, Mr. Zatkovich reasons from the fact that both BBPOS and Ingenico circuits use two MOSFET transistors. However he fails to explain the fact that the BBPOS circuit uses two resistors (R16 and R17) and two capacitors (C38 and C35), while these four components are completely absent from the Ingenico circuit. Not only are these not the same circuit, but neither is derived from the other.

169. The photograph in ¶ 154 shows no more than that the Ingenico device has an audio jack attached to a circuit board. That is not a trade secret of BBPOS.

170. In ¶¶ 155, 157 and 160, Mr. Zatkovich says that the pairs of illustrated devices "use the same design," but they plainly do not.

171. In ¶¶ 156-159, Mr. Zatkovich compounds the problem by relying on photographs of Ingenico and BBPOS devices that look visually similar. However, an electrical engineer would know that comparison of circuits, not photographs, is what matters. All mPOS devices that connect to an audio jack have an audio plug. All polarity detection and correction circuits have a ground connection. A comparison of photographs is meaningless in this context.

#### **B. Ingenico's use of BBPOS' Power Management design (Auto Power On)**

172. In ¶¶ 160-167, Mr. Zatkovich says that Ingenico used BBPOS’ “power management design.” It did not. There is a profound difference between implementing a common feature and using a trade secret design in doing so. Mr. Zatkovich shows no more than that Ingenico implemented the feature.

173. Mr. Zatkovich’s allegations in ¶¶ 161-167 border on the ludicrous. He argues that it was a BBPOS trade secret to have a device turn on when it is plugged in. However, such a function is essential for a device that does not have an on/off switch, or there would be no way to render it operational.

174. He does not exhibit any BBPOS circuit, yet somehow claims that Ingenico’s circuits are “similar” to the undisclosed BBPOS circuit.

175. In ¶ 167, Mr. Zatkovich says he tested various Ingenico devices and verified that “when that mPOS initialization occurs, the Ingenico device turns-on and remains on, exhibiting the same behavior as the BBPOS.” However, the “behavior” is not a trade secret, even if a specific circuit to perform that behavior might be. However, Mr. Zatkovich does not show any BBPOS circuit to which an Ingenico device might be compared.

176. The “behavior” to which Mr. Zatkovich refers was publicly available. BBPOS itself made this information in Chan, referred to above. It discloses:

*In general, in one aspect the invention provides a power management circuitry that is used in a peripheral electronic device. The power management circuitry includes a power regeneration circuitry, a power selector, a power switch and an audio signal detection circuitry. The power regeneration circuitry is configured to receive a continuous periodic sound wave from an audio device and to convert the continuous periodic sound wave into an amplified DC electrical signal. The power source selector is configured to receive a first input comprising the amplified DC electrical signal from the power regeneration circuitry and a second input from a primary power source and to provide a power signal output. The audio signal detection circuitry is configured to receive the amplified DC electrical signal from the power regeneration circuitry*

*and to transmit a wake-up signal to the power switch circuitry. The power switch circuitry is configured to be turned on by the wake-up signal and to connect the power source selector to the peripheral electronic device main circuitry and thereby to transfer the power signal output to the peripheral electronic device main circuitry.*

'001 Application, [0007]

**C. Ingenico's use of BBPOS' Pre-analyzed communication settings and adaptive threshold (or Auto Gain Control)**

177. In ¶¶ 168-173, Mr. Zatkovich attempts to show that Ingenico used BBPOS' pre-analyzed communication settings and adaptive threshold. However, I showed above in ¶¶ 161-162 that the settings nor the adaptive threshold process was disclosed to Roam. Therefore, use, by Ingenico, if it occurred at all, could only have resulted from legitimate reverse engineering. Mr. Zatkovich himself says in ¶¶ 171-172 that he was able to reverse-engineer the settings from a SDK by decompiling APIs. Any information that can be obtained in this manner cannot be a trade secret.

**D. Ingenico's use of BBPOS' BBPOS' Communication Formats**

178. In ¶¶ 174-175, Mr. Zatkovich relies on a statement in a requirements document allegedly showing that Ingenico specified the use of BBPOS formats 11 and 29. There is no evidence that these requirements were ever implemented. In any case, the formats themselves were readily ascertainable simply by examining communications between an mPOS reader and a mobile phone and thus cannot be trade secrets.

**E. Ingenico's use of BBPOS Data Security / Encryption Methods (DUKPT data method)**

179. In ¶¶ 176-179, Mr. Zatkovich points to three paragraphs of requirements documents specifying that "BBPOS encryption" should be used. There is no evidence, however, that any product was ever built satisfying that requirement, and Mr. Zatkovich's experiments

194. Mr. Zatkovich has not shown that any disclosure of the alleged trade secrets to parties in privity with Defendants contained any indication that any such disclosure was confidential.

195. Mr. Zatkovich has not shown that any of the alleged trade secrets has been misappropriated by any Defendant

196. Mr. Zatkovich has adduced evidence that the claims against Defendants were not brought within any applicable statute of limitations period.

Executed March 18, 2022 at Oakland, California.

  
Michael I. Shamos